

switching means for establishing and changing connections between the receiver side and the caller side[;]

[caller information detecting means for detecting a caller telephone number notified to a call receiver by a caller telephone number notification service; and

control means including a personal computer interface for establishing connection to a personal computer transmitting through the interface the detection information from the bell signal detecting means to application software initiation request means of the personal computer, initiating thereby directory application software, and transmitting through the interface the detected caller telephone number for displaying on a screen detailed information stored in a storage of the personal computer which is associated with the caller telephone number].

REMARKS

The Examiner's Action of March 2, 1999 has been received and its contents carefully considered.

The claims herein have been amended to read more directly on the embodiment of the invention depicted by the flow diagram in Fig. 6. In this embodiment the detection of the bell signal is transmitted through the interface to the personal computer for initiating the telephone computer directory application stored in the computer (Steps S1, S5, and S6). Simultaneously with the detection of the bell signal, the caller ID is detected (Step S2) and transmitted over the interface to the personal computer for accessing information, such as the name of the caller and

displaying the caller name (Step S7-S8). When the phone is placed in the off-hook state (Steps S3 and S4), the off-hook event is transmitted over the interface for reading more detailed information stored in the computer which is associated with the caller telephone number. Accordingly, not only is the telephone number of the calling party transmitted to the computer, but the calling party telephone number is transmitted to the computer immediately after a time when the bell signal is received so that the calling party information associated with the telephone number may be displayed by the telephone directory application software even before the phone is placed in the off-hook condition. Then, in response to the off-hook event, even more detailed information is displayed concerning the calling party.

The communicating apparatus recited by claim 1 now additionally recites a "bell signal detection means for detecting a bell signal to produce a detection information when the bell signal is received from the telephone line." This feature was previously cited in claims 5, 7 and 8. Claim 1 further now recites, as previously recited in claims 5, 7 and 8, a "central control means for transmitting through the interface the bell signal detection information for activating the telephone computer directory software in the personal computer." Further, claim 1 now emphasizes that immediately after a time when the bell signal is received, the central control means transmits the caller telephone number which is detected by the caller information detecting means through the interface for causing the telephone computer directory application software to access and

display information stored in the computer that is associated with the caller telephone number. Such information might comprise, for example, the name associated with the caller telephone number.

The communicating apparatus according to claim 1 thus requires not only that the calling party telephone number be transmitted to the computer but additionally that the calling party telephone number detected by the detector be transmitted to the computer immediately after the time when a bell signal so that the calling party information associated with the telephone number can be displayed by a telephone directory application software in the personal computer even before the telephone is placed in the off-hook state.

Claims 1, 2 and 4-6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Archibald et al. in view of Japanese publication 0913972 A. It is respectfully submitted that claim 1, as amended, and the claims dependent thereon, are patentably distinguishable over the prior art applied in the Examiner's Action.

Archibald et al. disclose a secure method of accessing a computer facility when an incoming telephone call signal is received by a modem 200 in such a way that the incoming call signal bypasses an off-hook relay 260 by way of a relay bypass circuit 250 such that the modem initially remains in an "on-hook" state. The incoming signal is then processed by DSP 230 which decodes the incoming signal to obtain the CPDN number, i.e., the caller telephone number, which is then compared with various

lists of CPDN numbers stored in a memory 220 of the modem. If the decoded CPDN matches one of the CPDN numbers on the "caller pays" list, the CPU 210 signals the DSP 230 to begin a data call establishment process and activates the off-hook relay 260, thereby changing the line impedance so that the telephone network 130 now detects an off-hook condition representing that the modem 200 has answered the telephone call. Having answered the telephone call, the modem 200 provides a data stream on line 151 via data terminal equipment interface 270 to a computer 150.

While the content of the data stream supplied to the computer is not completely clear from Archibald et al., the Examiner's Action suggests that this data stream includes the calling party's CPDN. Even if this were true, and even if it were obvious to provide the computer of Archibald et al. with a display for displaying different services as suggested in the Examiner's Action, such a combinations still would not comprise applicant's invention as defined by claim 1.

The incoming signal in Archibald et al., which comprises the usual CPDN information multiplexed with a ringing signal, although initially blocked by the on-hook state of the off-hook relay, is bypassed to the hybrid circuit 240 and processed by the DSP 230 to obtain the CPDN for a comparison with the lists of CPDN numbers stored in the modem. The incoming call signal is thus received and processed by the modem although the modem remains in the on-hook state. It is only after the modem has detected a positive comparison of the incoming CPDN with a CPDN stored on the "user pays" list in the modem, that the data

stream, possibly containing the caller CPDN is transmitted to the computer. This is contrary to the present invention, as defined by claim 1, wherein the detected bell signal information is transmitted through the interface to the computer for activating the telephone computer directory software, and immediately after a time when the bell signal is received, the detected caller telephone number is transmitted through the interface for causing the telephone computer directory application software to access and display information stored in the computer that is associate is with caller telephone number.

By contrast, Archibald et al. initially decode the incoming signal to provide both the ringing signal and the CPDN number, but neither signal is immediately supplied to the computer over the interface. Even assuming the Examiner's interpretation of Archibald et al., there is much processing taking place on the decoded CPDN before it is purportedly transmitted through the interface to the computer. In short, Archibald et al. do not teach a central control means which transmits a bell (ringing) signal through an interface to a computer for activating a telephone computer directory software and which immediately after a time when the bell signal is received, transmits the detected caller telephone number through the interface to the computer for causing the telephone computer directory application software to access and display information stored in the computer that is associate with the caller telephone number as required by claim 1.

In view of the above, it is submitted that claim 1 is patentable over Archibald et al. even as modified by Japanese 0913972 A.

Claim 2 depends from and incorporates the subject matter of claim 1 and is submitted to be patentable for at least the same reasons. Furthermore, claim 2 adds features to the communicating apparatus of claim 1 relating to the process for originating a call at the communicating apparatus as depicted by the flow diagram in Fig. 4. According to this aspect of the invention, when an off-hook condition is detected which may occur as a result of a hand set being placed in a condition to close the telephone line, the central control means operates to transmit the off-hook detection information to a directory application initiation request means integrally included in the personal computer for activating the telephone computer directory software. Thus, whereas the detected bell signal of an incoming call activates the telephone computer directory according to claim 1, the additional features of claim 2 are directed to the situation where a call is originated at the communicating apparatus and the telephone computer directory software is activated by the off-hook state of the hand set.

Archibald et al. disclose nothing whatsoever regarding the activation of a computer telephone directory when a call is originated much less activating the telephone computer directory in response to the off-hook state of a hand set. Accordingly, claim 2 is patentable over any reasonable combination of Archibald et al. and the Japanese Patent Publication.

Claim 4 also adds features to claim 1 relating to the call originating aspect of the invention depicted by the flow diagram of Fig. 4. According to claim 4, the central control means transmits information of the off-hook detection to the computer for activating the telephone computer directory software when a call is originated from the communicating apparatus. This is similar to the recitation in claim 2. In addition, claim 4 recites that the control means transmits off-hook detection information to the computer subsequent to detection of the bell signal in the call reception mode which causes the telephone computer directory software to display further information stored in the computer that is associate with the caller telephone number, such as the more detailed information illustrated in boxes 12 and 13 in Fig. 1. The Examiner's Action suggests that even though Archibald et al. do not explicitly teach displaying the caller telephone number, such display would be obvious. Clearly, however, Archibald et al. do not disclose, teach or otherwise suggest displaying such additional information associated with the caller telephone number as required by claim 4. Accordingly, claim 4 is submitted to be patentable over any reasonable reading of Archibald et al. in combination with the Japanese Patent Publication.

Claim 3 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Archibald et al. in view of the previously cited Japanese publication and further in view of Hirota. Claim 3 depends from claim 1 and adds features relating to a call originating sequence for activating the computer telephone

directory in the computer. Claim 3 is submitted to be patentable over the cited references for at least the reasons mentioned above in connection with claim 1 since the Japanese publication and Hirota add nothing whatsoever regarding the above noted deficiencies of Archibald et al. with regard to the apparatus recited by claim 1. Furthermore, neither the Japanese publication nor Hirota disclose anything whatsoever regarding the activation of the telephone computer directory in the computer in response to the off-hook detection resulting from the use of an image reading means for facsimile communication as recited in claim 3.

Claims 6-8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Archibald in view well known prior art. Claim 6 has been canceled. It is respectfully requested that this rejection of claims 7 and 8 be reconsidered and withdrawn. Claims 7 and 8 both depend from claim 1 which is believed to be patentable over Archibald et al. for the above noted reasons. Further, the purpose of claim 7 is to explicitly recite the personal computer with the directory application software and the application initiation request means as part of the claimed combination. Similarly, claim 8 recites further details of the invention as depicted in Fig. 3 of the drawings. Claim 7 also recites the transmission of off-hook detection under two separate circumstances. In the case of call origination at the communicating apparatus, the off-hook detection is transmitted to the computer for the activating the telephone computer directory whereas in the circumstance of call reception, the event of off-

hook detection is transmitted to the computer for causing the telephone computer directory to display more detailed information associated with the caller telephone number. These features are simply not taught by Archibald et al., the Japanese publication or any of the so called well known prior art referred to in the Examiner's Action.

In view of the above, it is respectfully submitted that the application is in condition for allowance with claims 1-4, 7 and 8. An early and favorable reconsideration of the application is requested.

If the Examiner believes that a conference would help to advance the prosecution of the application he is invited to call the undersigned at the telephone number listed below.

Respectfully submitted,



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